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(Prepared by Astronomicheskii Zhurnal)

[Translations from the English and popular science items have been omitted.]

BOOKS, PAMPHLETS, AND COLLECTIONS OF PAPERS

1. Aksel'rod, Z.M., "Clock Mechanism. Theory, Calculation, and Designing" (Chasovyye Mekhanizmy. Teoriya, Raschet i Proyektirovaniye), 360 pp, 265 illus, Ministry of Higher Educ, Leningrad Inst of Fine Mech and Optics, State Sci Tech Publishers of Mash Constr Lit, Moscow, Leningrad.
2. Bogoridakiy, A. F., Sr Sci Ass, Kiev Astr Obs, "Origin of the Solar System" (Proiskhozhdeniye Solnechnoy Sistemy), 40 pp, 7 illus, Popular Sci Library State Publishers of Tech Lit of Ukraine, Kiev.
3. Bublikov, S. "The Planet Earth" (Planeta Zemlya), 114 pp, 28 illus, Pedagogical Lit Publishers, Tartu.
4. Bugoslavskaya, E. Ya., and Bugoslavskaya, N. Ya, Cand Physicmath Sci, "Solar Corona" (Solnechnaya Korona). Part I. "Direct Corona" Steamers and Ionospheric Disturbances" (Pryamyye Koronal'nyye Potoki i Vozmushcheniya v Ionosfere), 8 pp, 5 illus, All-Union Sci Tech Soc of Radio Tech and Elec Communications imeni A.S. Popov. Part II. Papers of the Section on the Propagation of Radio Waves (Papers Read on the 50th Anniversary of Radio), Moscow
5. Val'rad, S.L., "How Scientists Predict Natural Phenomena. On Scientific Predictions and the Laws of Nature" (Kak Uchenyye Predskazyayut Yavleniya Prirody. O Nauchnykh Predvideniyyakh i Zakonakh Prirody), 60 pp with illus, Nature and Man Series, "Moscow Worker" Publishers.

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6. Vitozhents, Ch. Yu., Lt Col, Engineers, "Method of Investigating Optical Theodolites" (Metody Issledovaniya Opticheskikh Teodolitov), 128 pp, 39 illus, Mil Topography Adm of the Gen Staff, Armed Forces USSR, Mil Publishing House Ministry of Armed Forces USSR, Moscow.

7. "Geodesy, A Handbook" (Geofiziya, Spravochnoye Rukovodstvo), Gen Ed M. D. Bonch-Bruyevich; Vol III, "Survey and Grading" (S'yemka i Nivelirovka), edited by N. N. Stepanov, 364, 662 fig, 10 tables, published by Ministry of Communal Econ USSR, Moscow, Leningrad.

8. Idel'son, N. I. "Method of Least Squares and Theory of the Mathematical Treatment of Observations" (Sposob Naimen'shikh Kvadratov i Teoriya Matematicheskoy Obrabotki Nabludeniya), 359 pp, Main Adm of Geodesy and Cartography, Soviet of Ministers USSR, Moscow.

11. Klero, A., "Theory of the Earth's Shape, Based on Hydrostatic Principles" (Teoriya Figury Zemli, Osnovannaya na Nachalakh Gidrostatiki) Translated by E. A. Yakhontovoy, edited by N. I. Idel'son, 359 pp, Science Classics Series, Commission on Publication of Popular Sci Lit, Acad Sci USSR.

Contents:

a. "General Principles for the Selection of the States at Which Fluids Can Be Found in Equilibrium, and for the Determination of the Earth's Shape and of Other Planets With a Given Law of the Gravitational Force"

b. "Determination of the Shape of the Earth and Other Planets With the Supposition That All Their Parts are Mutually Attracted With a Force That is In Inverse Proportion to the Square of the Distance"

12. Krinov, E. L. Sci Sec, Meteorite Committee, "Meteorites. Instructions for Observing Their Fall and Methods for Collecting Their Fragments" (Meteority. Instruktsiya Dlya Nabludeniya Nad Padaniyem Meteoritov i Ukazaniya Dlya Ikh Sbrora) Gen Ed, Academician V. G. Fesenkov, 54 pp, 21 illus, 1 astr, Meteorite Committee, Acad Sci USSR, Moscow Leningrad.

13. Kuz'min, B. S., Col, "Time and Its Measurement. Methodical Bases of Study of Time" (Vremya i Ego Izmereniye. Metodologicheskiye Osnovaniya Issledovaniya Vremeni), 33 pp (Mil-Engin Red Banner Acad Ineni V. V. Kuybyshev) Publications of VJA, Moscow.

14. Kulikovskiy, P. G. "Lomonosov, Astronomer and Astrophysicist" (Lomonosov, Astronom i Astrofizik) from Lomonosov lectures, Moscow U, 46 pp, 10 illus, Moscow Order of Lenin State U, Publication of MGU, Moscow.

15. Jazarev, P. P., Academician, "Investigation on Adaptation" (Issledovaniya po Adaptatsii), 260 pp, 90 illus, 1 photo, Acad Sci USSR, Moscow, Leningrad.

16. "Mandel'shtam, L. I., Complete Collection of His Works" (Polnoye Sobraniye Trudov) Vol II, Edited by Prof S. M. Rytov, 396 pp with illus, Acad Sci USSR.

17. Martynovskiy, E. E. and Tabatskiy, V. Z., "Astral Clocks" (Zvezdnye Chasy), Edited by Prof V. P. Tvesevich, 2 pp, All-Union Astr Geodesic Soc Shop

- 2 -

CONFIDENTIAL

CONFIDENTIAL

50X1-HUM

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Lab, Odessa Div, All-Union Astr-Geodesic Soc, Acad Sci USSR. Graphic astronomical aid in calculating the average solar time by the location of the stars and in familiarization of stars close to the North Pole of the World.

18. Raykov, B.E., Prof, "Essay on the History of Heliocentric Viewpoints in Russia, From Past Russian Natural Science" (Ocherki po Istorii Geliocentricheskogo Mirovozzreniya v Rossii, Iz Proshlogo Russkogo Estestvoznaniya), 2d Ed., 392 pp, 42 illus, Popular Sci Series, Acad Sci USSR, Moscow, Leningrad.

19. Mikhaylov, A. A., Corr Mem, Acad Sci USSR, Shevlyakov, I. E., Prof, "Universe of Stars" (Zvezdnyaya Vselennaya), 44 pp, Sci Methodology Office, Adm for Lecture Propaganda, Committee for Cultural and Educ Inst, Soviet of Ministers RSFSR, Prepared by the Moscow Planetarium.

20. Mozilevskiy, B., "The Sun and Life" (Solntse i Zhizn), 52 pp with illus, Stat. Publishing House of Cultural and Educ Lit, Moscow.

21. Aronago, P. P., Prof, "Most Recent Developments in Astronomy" (Noveyshye Dostizheniya Astronomii), lecture notes, 24 pp, Adm for Lecture Propaganda, Committee for Cultural and Educ Inst, Soviet of Ministers RSFSR, State Publishing House of Cultural Educ Lit, Moscow.

22. "Collection of Scientific, Technical, and Industrial Papers on Geodesy, Cartography, Topography, Aerial Surveying, and Gravimetry" (Sbornik Nauchno-Tekhnicheskikh i Proizvodstvennykh Statей po Geodezii, Kartografii, Topografii, Aerofotogrammetrii i Gravimetrii) 4th Ed, Gen Ed, S. G. Sudakov, 147 p, Main Adm of Geodesy and Cartography, Soviet of Ministers, USSR, Moscow articles by L. A. Krivina, G.M. Zapchani, V. G. Meyers, D. A. Lapin, I. E. Belokoz, S. A. Angelov, Figiners, A. S. Turkevich, N. N. Veselovskiy, V. Ya Mikhaylov, Candidates Tech Sci; Prof N. A. Pavlov, Dr Tech Sci; Prof I. A. Khvostikov; P. N. Dolgov and M. S. Faresov; N. S. Fedobedov.

23. Sobolev, V. V., "Moving Envelopes of Stars" (Dvizhushchiesya Obolochki Zvezd), 114 pp, Leningrad Order of Lenin State U. Uses the theory of ray equilibrium of a moving medium, applied to the moving envelopes of stars.

24. Tikhov, G. A., Academician, "Structure of the Solar System" (Stroeniye Solnechnoy Sistemy), Trans by Zhabasov. 53 pp, 5 illus, Popular Sci Pamphlet, Kazakh GIZ Alma-Ata.

25. Fozenkov, V.G., Academician, "Meteorite Material in Interplanetary Space" (Meteornaya Materiya v Mezhplanetnom Prostranstve), 276 pp, 19 illus, Meteorite Committee, Inst of Astronomy and Physics, Kazakh Acad Sci, Publishing House of Acad Sci USSR, Moscow, Leningrad.

Contents:

- a. "Some Data on Matter in Interplanetary Space"
- b. "Light Effects Due to Streams of Hyperbolic Meteors"

- 3 -

CONFIDENTIAL

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- c. "Integral Effect of the Disintegration of Periodic Comets"
- d. "The Probability of Comet Capture Depending upon Their Orbit Declination"
- e. "Movement of Cosmic Dust in Interplanetary Space"
- f. "On the Possible Number and Total Area of the Asteroids"
- g. "Determination of the Density in Media of Interplanetary Space Material Under Fixed Conditions"
- h. "Theoretic Determination of Space Density of Meteoric Material in Interplanetary Space"
- i. "On the Rate of Change of the Substance of Zodiacal Light"
- j. "Zodiacal Light by Visual Observation and Considerations Concerning Photoelectric Investigation"
- k. "Theory of Nocturnal Luminescence"
- l. "Determination of the Effective Height of Luminescence of the Ionosphere"
- m. "Photoelectric Observations of Zodiacal Light and Their Interpretations"

26. Khachatryan, M.M., Lecturer, "Cartographic Projections" (Kartograficheskiye Proyeitsii), 304 pp, 127 illus, State Corr Pedagogical Inst, Armenian SSSR, Yerevan.

27. "Discussions on Nature and Man" (Besedy o Prirode i Cheloveke), 312 pp with illus, "Molodaya Gvardiya" Publishing House of TsK VLESK.

ALMANAC AND TABLES

28. "Astronomical Almanac for 1948" (Astronomicheskiy Yezhegodnik na 1948), 4th year of publication, edited by I. V. Matveyev, 6 pp, Kuybyshev State Astr Obs, Kuybyshev Dept, VAGO, Acad Sci USSR, printed by State Astr Obs.

29. "Astronomical Almanac of the USSR for 1949" (Astronomicheskiy Yezhegodnik na 1949) 28th year of publication, Edited by A.M. Gishitskiy, 492 pp, Inst of Theoretical Astr, Acad Sci USSR, Moscow, Leningrad.

30. "Soviet Astronomical Almanac for 1948" (Mirovyy Astronomicheskiy Yezhegodnik na 1948) 28th Ed, 238pp, Inst of Theoretical Astr, Acad Sci USSR, Publishing House Hydrographic Adm, VMS.

31. Gauss, F., "Tables for Calculating Right Angle Coordinates" (Tablitsy Dlya Vychisleniya Prysmongol'skiy Koordinat), compiled and edited by Prof A.S. Ghebotarev, 9th Ed, 108 pp, Mil Publishing House of Ministry of Armed Forces USSR, Moscow.

32. "Tables for Calculating Gauss-Kryuger Coordinates Within Latitudes 30° to 80°, Ellipsoid" (Tablitsy Dlya Vychisleniya Koordinat Gaussa-Kryugera v Predelakh Shiroty ot 30° to 80°, Ellipsoid), F.N. Krasovskiy, 192 pp, Main

- 4 -

CONFIDENTIAL

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50X1-HUM

Adm of Geodesy and Cartography, Soviet of Ministers USSR, Moscow. Tables for the calculation of (1) plane right-angle conforming coordinates and connecting meridians by geodesic coordinates; (2) geodesic coordinates by given right-angle coordinates; (3) reductions of horizontal courses in the change from geodesic lines to chords; (4) reduction of the distances in calculating scalar representation.

PERIODICALS AND PUBLICATIONS OF INSTITUTES AND OBSERVATORIES

33. "Astronomical Circular" (Astronomicheskiy Tsirkulyar) No 67, 14 Nov 1947, 8 pp, issued by Bu of Astr Info, Acad Sci USSR, Gen Ed, D. Ya Martynov.

Contents:

- a. Martynov, D. Ya., "Notes on Changing Stars"
- b. Bakulin, P. I., "Combined Moments of Rhythmic Signals for June 1947"
- c. Astanovich, I. S., "Some Results of the Observation of Meteors From High Mountains"

34. "Astronomical Circular," issued by the Astr Obs, Kiev State U, No 14, 1947, 6 pp.

Contents:

- a. "The Kiev Astronomical Observatory"
- b. "Activity of the Sun, June 1947"

35. "Bulletin of the All-Union Astronomical Geodesic Society" (Byulleten' Vsesoyuznogo Astronomo-Geodesicheskogo Obshchestva), Gen Ed, P. I. Popov, Acad Sci, USSR, Moscow, Leningrad.

No 1 (8) 1947, 44 pp:

- a. Tikhov, G. A. "Spectral Reflecting Ability of Greens in Connection With the Question of Vegetation on Mars"
- b. Bugoslavskaya, E. Ya, "Curves of the Sun's Activity by Observations on Prominences During 1942"
- c. Sakharov, A. N. "Observations on a Total Lunar Eclipse, 19 December 1945 in Ashkhabad"
- d. "Observations of a Partial Solar Eclipse 9 July 1945 at Moscow"
- e. "The Study of Tuleaccpic Meteors"
- f. Mikhaylov, A. A., "Report on the Activity of the All-Union Astronomical Geodesic Society, 1945"
- g. Central Soviet of VAGO, "Problems of VAGO in the Field of Geodesy and Cartography"
- h. Nabokov, M. E., "Graphic Astronomical Calendar for 1947"

- 5 -

CONFIDENTIAL

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No 2, 1947, 36 pp:

- a. Fedynakiy, V. V., "Dragon's Heads [Meteors] in 1946"
- b. Katasev, L. A., "Observations on the Tail of the 9-10 October 1948 Dragon's Heads [Meteor]"
- c. Kondratenko, V. T., and Yashin, N. M., "Perseids in 1940"
- d. Bakhchev, A. M., "Quartiles in 1946"
- e. Ter-Ognaszov, V. T., "Expanded Membership of the Central Soviet VAGO"
- f. Popov, P. I., "Departments of VAGO and Astroncmical Instruction in School"
- g. "Report on the Activity of the All-Union Astronomical Geodesic Society (VAGO) for 1946"

36. "Reports of the Academy of Sciences of the Kazakh SSR Astronomical and Physical Series," Edited by V. G. Fesenkov, 134 pp, Alma-Ata.

Contents:

- a. Litvinov, V. F., "Selection of the Area of the Kazakh Astro-physical Observatory"
- b. Pariyakiy, N. N., Pariyakaya, L. V. and Perevertun, M. P., "Nocturnal Luminescence at Alma-Ata and Its Environs"
- c. Fesenkov, V. G., "Investigation of the Climate Around Alma-Ata and the Summit of Karatau for Astronomical Purposes"
- d. "Organization of the Kazakh Astronomical Observatory"
- e. "Theory of Vertical Visibility"
- f. Pariyakiy, N. N. and Pariyakaya, L. V., "Photographic Change of Nocturnal Brightness in Alma-Ata and Remizov"
- g. Tikhov, G. A., "Observations on Transparency and Clarity of the Atmosphere From the Summit of Karatau in 1943"
- h. Markovich, M. M., "Studying the Scattering of Light in a Given Volume of Air"
- i. Litvinov, V. F. and Ruchkina, V. D., "Study of Suspended Particles in the Atmosphere"
- j. Kolosova, V. N., "Absolutization of the Readings of a Thermoclement Used as a Radiometer"
- k. B. P. Ostashevsko-Kudryavtsev - "On Leshanir's Theorem," "Properties of Cartographic Scales Projections Toward The Greatest and Least Azimuth Deviation"

37. "Papers of the Institute of Theoretical Geophysics" (Trudy Instituta

- 6 -

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Teoreticheskoj Geofiziki) Vol II, 2d Ed, Edited by Academician O. Yu. Shmidt, 116 pp, USSR, Moscow, Leningrad.

Contents:

- a. Krasovskiy, F. N., "Certain Scientific Astronomical Geodesic Problems in Connection With the Study of the Construction of the Hard Surface of the Earth"
 - b. Berson, I. S., "Space Problem of the Interpretation of Hydrographs of Broken Waves"
 - c. Kazinskiy, V. A., "Technique of Calculating Gravitational Forces," "Relationship Between the Declinations of a Plumb Line and the Gradients and Radii of a Geoid Curvature"
38. "Circular of the State Astronomical Institute imeni P. K. Shternberg" lists 12 bulletins on "Time Service" and "Moments of Rhythmic Time Signals for 1947" Publications of MGU, Moscow.

39. "Circular of the Astronomical Observatory of the Lvov State University imeni I. V. Franko," Gen Ed V. E. Stepanov, Ministry of Higher Educ USSR, No 3, Apr 1947, 12 pp, Lvov

Contents:

- a. Mandrykina, T. L. and G. E. Rodinovo, "Sun's Activity, 1 January-31 March 1947"
 - b. Mandrykina, T. L., "Number of Clear Days From 1933 to 1946 According to the Observations of the Lvov Astronomical Observatory"
 - c. Lazelnik, Ya. D., "Orion"
40. "Circular of the Tashkent Astronomical Observatory," Edited by P. Loginov, No 168, Mar 1945, 4 pp; No 169, Apr 1945, 4 pp; No 170, May 1945, 4 pp.

Contents:

- a. Merkulov, A., "Activity of the Sun " for Feb, Mar and Apr 1945.
- b. Shobeglov, V. "Moments of Rhythmic Time Signals" Feb, Mar, Apr, 1945.

- E N D -

- 7 -

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